



## Traffic Safety Facts Michigan 2006-2010



This Report Contains Data From the Following Sources:

Fatality Data - NCSA Fatality Analysis Reporting System (FARS): 2006-2009 Final File and 2010 Annual Report File (ARF)  
Observed Safety Belt Data - NCSA National Occupant Protection Use Survey (NOPUS) and the Michigan State Survey  
Vehicle Miles of Travel Data and Motorcycle Registrations - Federal Highway Administration (FHWA)  
Population Data - U.S. Bureau of the Census



## Table of Contents (Listed by Table Title and Page Number)

3. Traffic Safety Performance Measures
4. Fatality Rates: Michigan , U.S. and Best State
5. Alcohol-Related Fatalities: Michigan , U.S. and Best State (Old Definition)
6. Alcohol-Impaired Driving Fatalities: Michigan , U.S. and Best State (New Definition)
7. Fatalities Per 100 Million VMT: Michigan , U.S.
7. Alcohol-Impaired Driving Fatalities Per 100 Million VMT: Michigan , U.S.
8. Blood Alcohol Concentration (BAC) Reporting Rates For Drivers/Motorcycle Rider (Operators) Involved in Fatal Crashes: Michigan , U.S. and Best State
9. Front Seat Passenger Vehicle Occupants, Aged 5 and Over, by Restraint Use: Fatalities and Observed Michigan , U.S. and Best State
10. Front Seat Passenger Vehicle Occupant Fatalities, Aged 5 and Over, by Percent Restraint Use: Michigan , U.S.
10. Front Seat Passenger Vehicle Occupants Observed, Aged 5 and Over, by Percent Restraint Use: Michigan , U.S.
11. Passenger Vehicle Occupant Fatalities Aged 5 and Above by Restraint Use and Lives Saved Estimates
11. Passenger Vehicle Occupant Fatalities Aged Under 5 by Restraint Use and Lives Saved Estimates
12. Motorcyclist Fatalities by Helmet Use and Lives Saved Estimates
13. Fatalities by Person Type
14. Fatalities by Crash Type
15. Motorcyclist Fatalities by Age
15. Motorcyclist Fatalities Per 100,000 Registered Motorcycles
16. Fatalities by Person Type and Race/Hispanic Origin
17. Top 10 Counties for Fatalities
18. Top 10 Counties for Fatalities: Year to Year Percent Change
19. Top 10 Counties for Fatality Rates
20. Motor Vehicle Crash Fatality Maps:  
Total Fatalities, Alcohol-Impaired Driving Fatalities, Single Vehicle Crash Fatalities
21. Motor Vehicle Crash Fatality Maps:  
Large Truck Crash Fatalities, Speeding Involved Fatalities, Roadway Departure Fatalities
22. Motor Vehicle Crash Fatality Maps:  
Intersection Fatalities, Passenger Car Occupants, Light Truck and Van Occupants
23. Motor Vehicle Crash Fatality Maps:  
Motorcyclist Fatalities, Pedestrian Fatalities, Pedestrian Fatalities



## Traffic Safety Performance (Core Outcome) Measures\* For Michigan

Core Outcome Measures		Year				
		2006	2007	2008	2009	2010
<b>Traffic Fatalities</b>	<b>Total</b>	1,086	1,087	980	872	942
	<b>Rural</b>	664	642	586	399	427
	<b>Urban</b>	421	445	394	473	515
	<b>Unknown</b>	1	0	0	0	0
<b>Fatalities Per 100 Million Vehicle Miles Driven</b>	<b>Total</b>	1.04	1.04	0.96	0.90	0.97
	<b>Rural</b>	2.03	2.00	1.84	1.27	1.34
	<b>Urban</b>	0.59	0.61	0.56	0.72	0.78
<b>Passenger Vehicle Occupant Fatalities (All Seat Positions)</b>	<b>Total</b>	770	781	669	590	599
	<b>Restrained</b>	424	425	344	304	318
	<b>Unrestrained</b>	252	256	241	199	207
	<b>Unknown</b>	94	100	84	87	74
<b>Alcohol-Impaired Driving Fatalities (BAC=.08+)**</b>		335	304	284	243	230
<b>Speeding-Related Fatalities</b>		219	242	232	205	231
<b>Motorcyclist Fatalities</b>	<b>Total</b>	114	123	128	109	137
	<b>Helmeted</b>	95	99	100	90	122
	<b>Unhelmeted</b>	13	11	14	11	10
	<b>Unknown</b>	6	13	14	8	5
<b>Drivers Involved in Fatal Crashes</b>	<b>Total</b>	1,514	1,537	1,409	1,241	1,311
	<b>Aged Under 15</b>	4	2	0	1	5
	<b>Aged 15-20</b>	179	211	166	151	152
	<b>Aged Under 21</b>	183	213	166	152	157
	<b>Aged 21 and Over</b>	1,312	1,296	1,213	1,060	1,134
	<b>Unknown Age</b>	19	28	30	29	20
<b>Pedestrian Fatalities</b>		136	131	114	118	128

\*These Performance Measures Were Developed By The National Highway Traffic Safety Administration (NHTSA) and the Governors Highway Safety Association (GHSA) (See Publication: DOT HS 811 025)

\*\*Based on the BAC of All Involved Drivers and Motorcycle Riders (Operators) Only

[Back To The Table of Contents](#)



### Fatality Rates: Michigan , U.S. and Best State

Year		Fatalities	Total Vehicle Miles Traveled (Millions)	Fatalities Per 100 Million Vehicle Miles Traveled	Total Population	Fatalities Per 100,000 Population
2006	Michigan	1,086	104,184	1.04	10,036,081	10.82
	US	42,708	3,014,371	1.42	298,379,912	14.31
	Best State*			0.78		6.48
2007	Michigan	1,087	104,614	1.04	10,001,284	10.87
	US	41,259	3,031,124	1.36	301,231,207	13.70
	Best State*			0.79		6.53
2008	Michigan	980	101,825	0.96	9,946,889	9.85
	US	37,423	2,976,528	1.26	304,093,966	12.31
	Best State*			0.67		5.63
2009	Michigan	872	96,769	0.90	9,901,591	8.81
	US	33,883	2,956,764	1.15	306,771,529	11.05
	Best State*			0.62		4.90
2010	Michigan	942	97,567	0.97	9,877,574	9.54
	US	32,885	2,966,506	1.11	309,349,689	10.63
	Best State*			0.58		3.97

\*State (or States) With Lowest Rates: Lowest VMT and Population Rates Could Be in Different States

[Back To The Table of Contents](#)



Fatalities By The Highest Blood Alcohol Concentration (BAC) in the Crash\*\*:  
Michigan , U.S. and Best State  
(Old Definition)

Year		Total Fatalities in all Crashes	Highest BAC level in the Crash					
			BAC = .01+			BAC = .08+		
			Number	Percent	Per 100 Million VMT	Number	Percent	Per 100 Million VMT
2006	Michigan	1,086	447	41	0.43	385	35	0.37
	US	42,708	17,738	42	0.59	15,144	35	0.50
	Best State*			24	0.26		20	0.22
2007	Michigan	1,087	433	40	0.41	356	33	0.34
	US	41,259	17,158	42	0.57	14,603	35	0.48
	Best State*			24	0.27		21	0.23
2008	Michigan	980	379	39	0.37	328	33	0.32
	US	37,423	15,449	41	0.52	13,258	35	0.45
	Best State*			21	0.21		16	0.16
2009	Michigan	872	333	38	0.34	287	33	0.30
	US	33,883	14,179	42	0.48	12,149	36	0.41
	Best State*			25	0.24		18	0.17
2010	Michigan	942	329	35	0.34	269	29	0.28
	US	32,885	13,364	41	0.45	11,560	35	0.39
	Best State*			23	0.21		21	0.18

\*State (or States) With Lowest Percents: Lowest Percents Could Be in Different States

\*\*Based on the BAC of All Involved Drivers, Motorcycle Riders (Operators), Pedalcyclists and Pedestrians

[Back To The Table of Contents](#)



Alcohol-Impaired Driving Fatalities\*\*:  
Michigan , U.S. and Best State  
(New Definition)

Year		Total Fatalities in all Crashes	Alcohol-Impaired Driving Fatalities (BAC = .08+)		
			Number	Percent	Per 100 Million VMT
2006	Michigan	1,086	335	31	0.32
	US	42,708	13,491	32	0.45
	Best State*			18	0.20
2007	Michigan	1,087	304	28	0.29
	US	41,259	13,041	32	0.43
	Best State*			19	0.21
2008	Michigan	980	284	29	0.28
	US	37,423	11,711	31	0.39
	Best State*			16	0.16
2009	Michigan	872	243	28	0.25
	US	33,883	10,759	32	0.36
	Best State*			17	0.16
2010	Michigan	942	230	24	0.24
	US	32,885	10,228	31	0.34
	Best State*			19	0.14

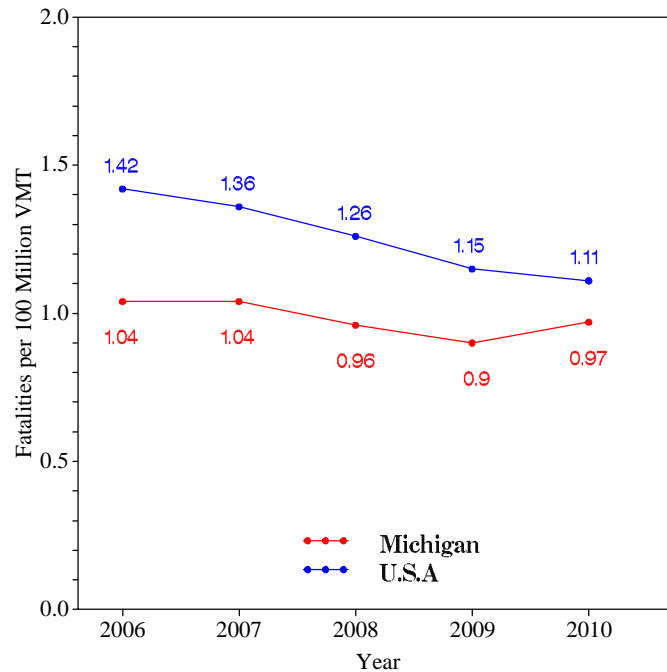
\*State (or States) With Lowest Percents: Lowest Percents Could Be in Different States

\*\*Based on the BAC of All Involved Drivers and Motorcycle Riders (Operators) Only

[Back To The Table of Contents](#)

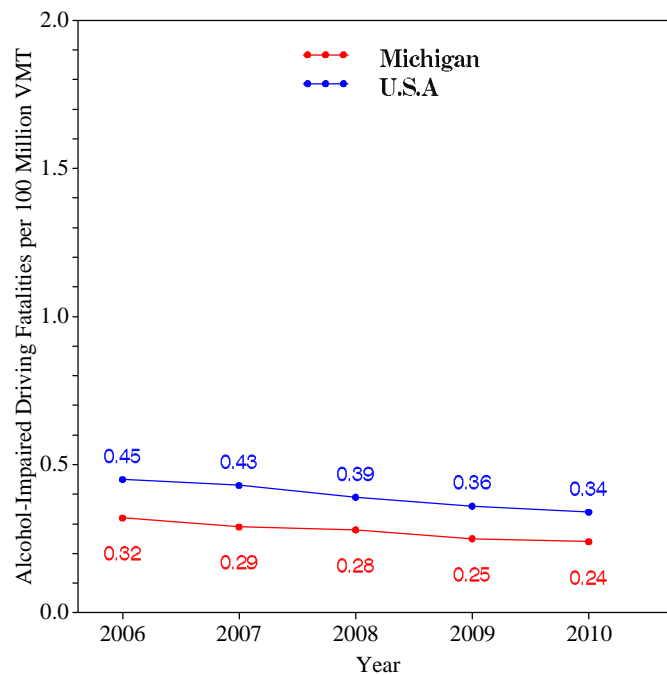


## Fatalities per 100 Million VMT



[Back To The Table of Contents](#)

## Alcohol-Impaired Driving Fatalities per 100 Million VMT



[Back To The Table of Contents](#)



**Blood Alcohol Concentration (BAC) Reporting Rates**  
**For Drivers/Motorcycle Riders (Operators)**  
**Involved in Fatal Crashes:**  
**Michigan , U.S. and Best State**

Year		Surviving Drivers/Motorcycle Riders			Killed Drivers/Motorcycle Riders			Total Drivers/Motorcycle Riders		
		Total	With Blood Alcohol Concentration (BAC) Results Reported to FARS		Total	With Blood Alcohol Concentration (BAC) Results Reported to FARS		Total	With Blood Alcohol Concentration (BAC) Results Reported to FARS	
			Number	Percent		Number	Percent		Number	Percent
2006	Michigan	819	313	38	695	485	70	1,514	798	53
	US	30,498	7,482	25	27,348	18,911	69	57,846	26,393	46
	Best State*			81			99			85
2007	Michigan	853	340	40	684	550	80	1,537	890	58
	US	29,449	7,631	26	26,570	19,434	73	56,019	27,065	48
	Best State*			82			100			84
2008	Michigan	781	358	46	628	487	78	1,409	845	60
	US	26,162	7,656	29	24,254	18,415	76	50,416	26,071	52
	Best State*			81			99			85
2009	Michigan	696	322	46	545	427	78	1,241	749	60
	US	23,502	7,188	31	21,835	16,753	77	45,337	23,941	53
	Best State*			86			100			90
2010	Michigan	719	351	49	592	437	74	1,311	788	60
	US	23,424	6,955	30	21,016	14,872	71	44,440	21,827	49
	Best State*			88			93			87

\*State (or States) With Highest Percents: Highest Percents Could Be in Different States

[Back To The Table of Contents](#)



Daytime Front Seat (Outboard Only) Passenger Vehicle Occupants, Aged 5 and Over, by Restraint Use:  
Fatalities and Observed  
Michigan , U.S. and Best State

Year		Fatalities - Restrained**	Observed - Restrained***
		Percent	Percent
2006	Michigan	75	94
	US	55	81
	Best State*	100	96
2007	Michigan	75	94
	US	57	82
	Best State*	82	98
2008	Michigan	71	97
	US	56	83
	Best State*	78	97
2009	Michigan	72	98
	US	58	84
	Best State*	77	98
2010	Michigan	71	95
	US	59	85
	Best State*	100	98

\*State With Highest Percent. Fatal Crash and Observed Percents Can Be Different States

\*\*Percent Based Only Where Restraint Use Was Known

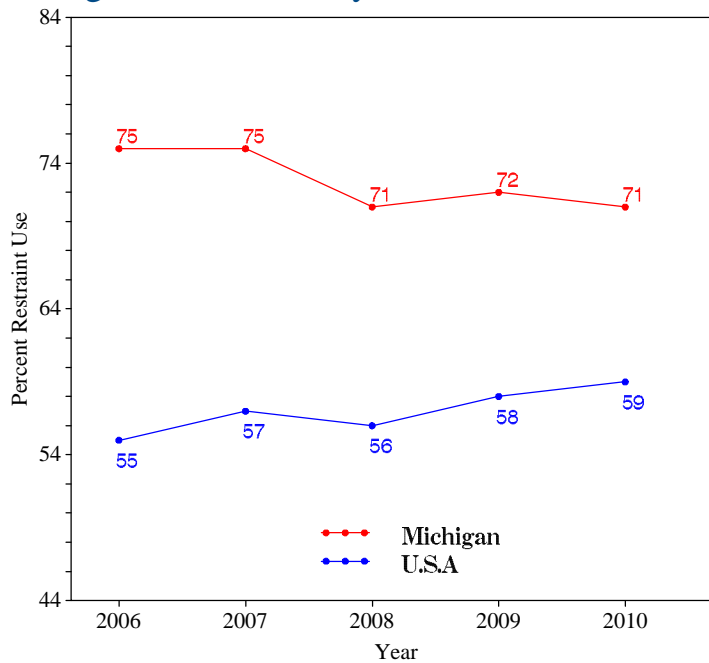
\*\*\*USA Data: National Occupant Protection Use Survey. Michigan Data: State Survey

Note: The Purpose of this Table is to Compare (as closely as possible) the Use of Restraint Systems by Fatally Injured Occupants with Occupants in all Driving Situations

[Back To The Table of Contents](#)



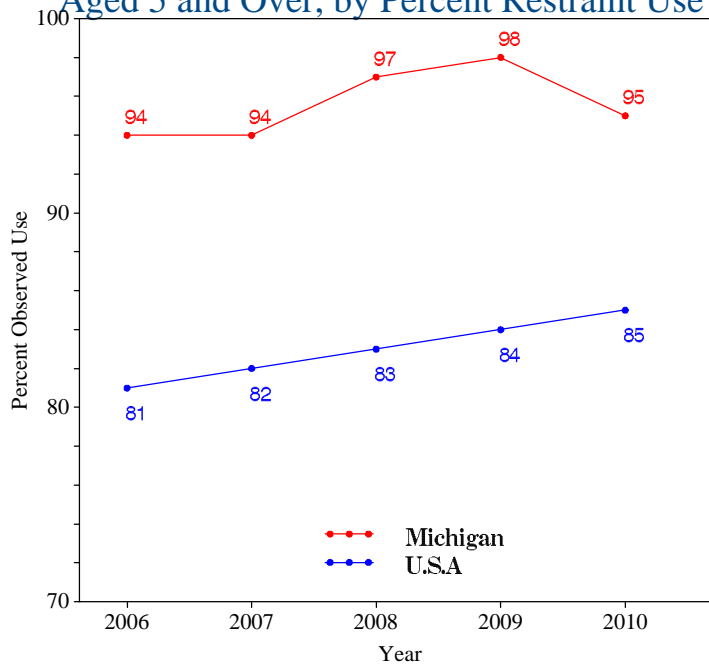
### Daytime Front Seat (Outboard Only) Passenger Vehicle Occupant Fatalities, Aged 5 and Over, by Percent Restraint Use\*



\*Percent Based Only Where Restraint Use Was Known

[Back To The Table of Contents](#)

### Daytime Front Seat (Outboard Only) Passenger Vehicle Occupants Observed, Aged 5 and Over, by Percent Restraint Use\*



\*USA Data: National Occupant Protection Use Survey. Michigan Data: State Survey

[Back To The Table of Contents](#)



### Passenger Vehicle Occupant Fatalities Age 5 and Above by Restraint Use and Lives Saved Estimates

Year	Fatalities Age 5 and Above					Lives Saved Estimates**	
	Total	Restrained	Unrestrained	Unknown Restraint Use	Percent Known Restrained*	Lives Saved at Current Belt Use	Additional Lives Savable at 100% Belt Usage
2006	761	419	249	93	63	538	81
2007	775	422	256	97	62	546	69
2008	662	339	241	82	58	465	46
2009	586	302	197	87	61	397	23
2010	592	312	207	73	60	415	47

\*Percent Based Only Where Restraint Use Was Known

\*\*Lives Saved Estimates (Sum of columns may not equal other published numbers due to rounding)

[Back To The Table of Contents](#)

### Passenger Vehicle Occupant Fatalities Age 4 and Under by Restraint Use and Lives Saved Estimates

Year	Fatalities Age 4 and Under					Lives Saved Estimates**
	Total	Restrained	Unrestrained	Unknown Restraint Use	Percent Known Restrained*	Lives Saved at Current Seat Belt and Child Safety Seat Usage
2006	9	5	3	1	63	8
2007	6	3	0	3	100	6
2008	7	5	0	2	100	8
2009	4	2	2	0	50	3
2010	7	6	0	1	100	13

\*Percent Based Only Where Restraint Use Was Known

\*\*Lives Saved Estimates

[Back To The Table of Contents](#)



### Motorcyclist Fatalities by Helmet Use and Lives Saved Estimates

Year	Fatalities					Lives Saved Estimates**	
	Total	Helmeted	Unhelmeted	Unknown Helmet Use	Percent Known Helmeted*	Lives Saved at Current Helmet Use	Additional Lives Savable at 100% Helmet Usage
2006	114	95	13	6	88	59	6
2007	123	99	11	13	90	65	5
2008	128	100	14	14	88	67	6
2009	109	90	11	8	89	58	4
2010	137	122	10	5	92	75	4

\*Percent Based Only Where Helmet Use Was Known

\*\*Lives Saved Estimates (Sum of columns may not equal other published numbers due to rounding)

[Back To The Table of Contents](#)



### Fatalities by Person Type

Person Type		2006		2007		2008		2009		2010	
		#	%*	#	%*	#	%*	#	%*	#	%*
Occupants	Passenger Car	488	45	486	45	391	40	371	43	373	40
	Light Truck - Pickup	91	8	111	10	109	11	88	10	76	8
	Light Truck - Utility	133	12	103	9	105	11	87	10	106	11
	Light Truck - Van	58	5	81	7	64	7	44	5	44	5
	Large Truck	11	1	6	1	8	1	2	0	8	1
	Bus	0	0	1	0	1	0	0	0	2	0
	Other/Unknown Occupants	26	2	20	2	30	3	27	3	32	3
	<b>Total Occupants</b>	807	74	808	74	708	72	619	71	641	68
Motorcyclists	<b>Total Motorcyclists</b>	114	10	123	11	128	13	109	13	137	15
Nonoccupants	Pedestrian	136	13	131	12	114	12	118	14	128	14
	Bicyclist and Other Cyclist	28	3	17	2	25	3	19	2	29	3
	Other/Unknown Nonoccupants	1	0	8	1	5	1	7	1	7	1
	<b>Total Nonoccupants</b>	165	15	156	14	144	15	144	17	164	17
<b>Total</b>	<b>Total</b>	1,086	100	1,087	100	980	100	872	100	942	100

\*Sum of Percents May Not = 100 Due to Individual Cell Rounding

[Back To The Table of Contents](#)



## Fatalities by Crash Type

Crash Type	2006	2007	2008	2009	2010
<b>Total Fatalities (All Crashes)*</b>	1,086	1,087	980	872	942
<b>- (1) Single Vehicle</b>	574	547	520	458	513
<b>- (2) Involving a Large Truck</b>	116	124	88	67	85
<b>- (3) Involving Speeding</b>	219	242	232	205	231
<b>- (4) Involving a Rollover</b>	216	208	211	176	181
<b>- (5) Involving a Roadway Departure</b>	537	518	484	390	420
<b>- (6) Involving an Intersection (or Intersection Related)</b>	246	262	217	225	261

(1) Crash Involved Only One Coded Vehicle

(2) Crash Involved at Least One Large Truck

(3) Crash Involved at Least One Vehicle Speeding

(4) Crash Involved at Least One Vehicle That Rolled Over

(5) Crash Involved at Least One Vehicle That Departed the Roadway (FHWA Definition)

(6) Crash Occured Within an Intersection or Within the Approach to an Intersection

\*A Fatality Can Be in More Than One Category. Therefore Sum of the Individual Cells Will Not Equal the Total Due to Double Counting

[Back To The Table of Contents](#)



### Motorcyclist Fatalities by Age

Year	Age						Total
	<20	20-29	30-39	40-49	50-59	>59	
2006	3	21	24	22	35	9	114
2007	7	30	24	20	24	18	123
2008	7	28	22	30	26	15	128
2009	4	18	23	23	25	16	109
2010	2	30	14	36	39	16	137

[Back To The Table of Contents](#)

### Motorcyclist Fatalities Per 100,000 Registered Motorcycles

Year	Motorcyclist Fatalities	Total Motorcycle Registrations*	Motorcyclist Fatalities Per 100,000 Motorcycle Registrations
2006	114	248,002	45.97
2007	123	268,685	45.78
2008	128	271,161	47.20
2009	109	267,388	40.76
2010	137	280,714	48.80

\*Data Source: FHWA

[Back To The Table of Contents](#)



## Fatalities by Person Type and Race/Hispanic Origin

Person Type by Race/Hispanic Origin		2006	2007	2008	2009
Occupants (All Vehicle Types)	Hispanic	40	46	36	31
	White Non-Hispanic	717	697	660	539
	Black, Non-Hispanic	97	115	94	110
	American Indian, Non-Hispanic/Unknown	30	33	25	24
	Asian, Non-Hispanic/Unknown	11	13	11	5
	Pacific Islander, Non-Hispanic/Unknown	0	0	0	1
	Multiple Races, Non-Hispanic/Unknown	0	0	1	0
	All Other Non-Hispanic or Race	7	4	6	2
	Unknown Race and Unknown Hispanic	19	23	3	16
	<b>Total</b>	921	931	836	728
Non-Occupants (Pedestrians, Pedalcyclists and Other/Unknown NonOccupants)					
	Hispanic	6	6	6	2
	White Non-Hispanic	107	96	93	80
	Black, Non-Hispanic	43	41	36	45
	American Indian, Non-Hispanic/Unknown	6	8	4	6
	Asian, Non-Hispanic/Unknown	0	2	1	3
	Pacific Islander, Non-Hispanic/Unknown	0	0	0	0
	Multiple Races, Non-Hispanic/Unknown	0	0	0	1
	All Other Non-Hispanic or Race	0	1	1	1
	Unknown Race and Unknown Hispanic	3	2	3	6
	<b>Total</b>	165	156	144	144
<b>Total</b>		1,086	1,087	980	872

2010 Race/Hispanic Origin Data is Not Yet Complete

[Back To The Table of Contents](#)



### 5 Year Trend For The Top 10 Counties of 2010 - Fatalities

Counties by 2010 Ranking		Fatalities					Percent of Total				
		2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
1	Wayne County	173	190	159	173	157	16	17	16	20	17
2	Kent County	58	68	56	58	63	5	6	6	7	7
3	Oakland County	63	49	56	53	59	6	5	6	6	6
4	Macomb County	61	52	40	41	43	6	5	4	5	5
5	Genesee County	60	57	43	34	42	6	5	4	4	4
6	Berrien County	21	26	24	15	27	2	2	2	2	3
7	Saginaw County	33	27	26	9	25	3	2	3	1	3
8	St. Clair County	18	17	17	15	24	2	2	2	2	3
9	Jackson County	22	24	17	12	20	2	2	2	1	2
10	Kalamazoo County	25	27	31	17	20	2	2	3	2	2
<b>Sub Total 1.*</b>	<b>Top Ten Counties</b>	559	551	490	455	480	51	51	50	52	51
<b>Sub Total 2.**</b>	<b>All Other Counties</b>	527	536	490	417	462	49	49	50	48	49
<b>Total</b>	<b>All Counties</b>	1,086	1,087	980	872	942	100	100	100	100	100

\*This Sub Total is the Total for the Top Ten Counties

\*\*This Sub Total is the Total for all Counties Outside the Top Ten

[Back To The Table of Contents](#)



## 5 Year Trend For The Top 10 Counties of 2010 - Fatalities Year to Year Percent Change

Counties by 2010 Ranking		Fatalities					Percent Change From Previous Year			
		2006	2007	2008	2009	2010	2007	2008	2009	2010
1	Wayne County	173	190	159	173	157	10	-16	9	-9
2	Kent County	58	68	56	58	63	17	-18	4	9
3	Oakland County	63	49	56	53	59	-22	14	-5	11
4	Macomb County	61	52	40	41	43	-15	-23	3	5
5	Genesee County	60	57	43	34	42	-5	-25	-21	24
6	Berrien County	21	26	24	15	27	24	-8	-38	80
7	Saginaw County	33	27	26	9	25	-18	-4	-65	178
8	St. Clair County	18	17	17	15	24	-6	0	-12	60
9	Jackson County	22	24	17	12	20	9	-29	-29	67
10	Kalamazoo County	25	27	31	17	20	8	15	-45	18
<b>Sub Total 1.*</b> <i>Top Ten Counties</i>		559	551	490	455	480	-1	-11	-7	5
<b>Sub Total 2.**</b> <i>All Other Counties</i>		527	536	490	417	462	2	-9	-15	11
<b>Total</b> <i>All Counties</i>		1,086	1,087	980	872	942	0	-10	-11	8

\*This Sub Total is the Total for the Top Ten Counties

\*\*This Sub Total is the Total for all Counties Outside the Top Ten

[Back To The Table of Contents](#)



## 5 Year Trend For The Top 10 Counties of 2010 - Fatality Rates

Median Rate for all U.S. Counties: 17.1

Counties by 2010 Ranking		Fatalities Per 100,000 Population				
		2006	2007	2008	2009	2010
1	Alcona County	34.77	8.76	17.72	27.01	64.31
2	Keweenaw County	0.00	190.11	0.00	93.85	46.10
3	Arenac County	53.04	11.90	12.09	30.78	37.81
4	Missaukee County	19.94	0.00	46.58	20.14	33.72
5	Alger County	0.00	40.90	0.00	32.14	31.33
6	Gladwin County	7.48	7.61	7.71	11.66	31.16
7	Luce County	59.38	29.45	14.97	15.12	30.28
8	Crawford County	47.96	48.43	13.91	7.06	28.50
9	Ogemaw County	22.72	22.79	22.85	4.58	27.75
10	Emmet County	6.07	9.15	12.18	18.31	27.53
<b>Sub Rate 1.*</b> <i>Top Ten Counties</i>		38.03	35.10	35.95	33.21	33.13
<b>Sub Rate 2.**</b> <i>All Other Counties</i>		10.28	10.25	9.46	8.38	9.16
<b>Total Rate</b> <i>All Counties</i>		10.82	10.87	9.85	8.81	9.54

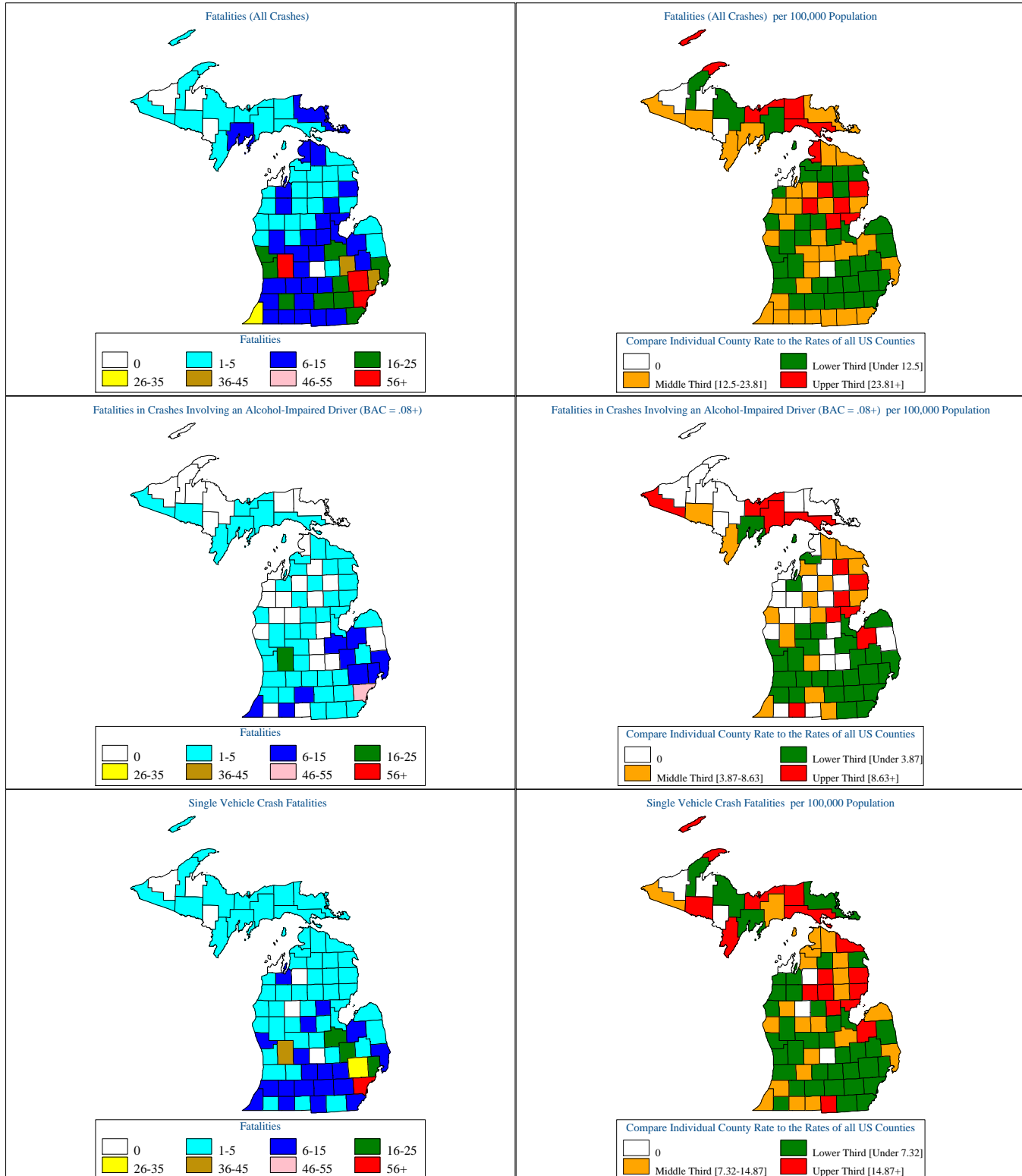
\*This Sub Rate is the Rate for the Top Ten Counties

\*\*This Sub Rate is the Rate for all Counties Outside the Top Ten

[Back To The Table of Contents](#)



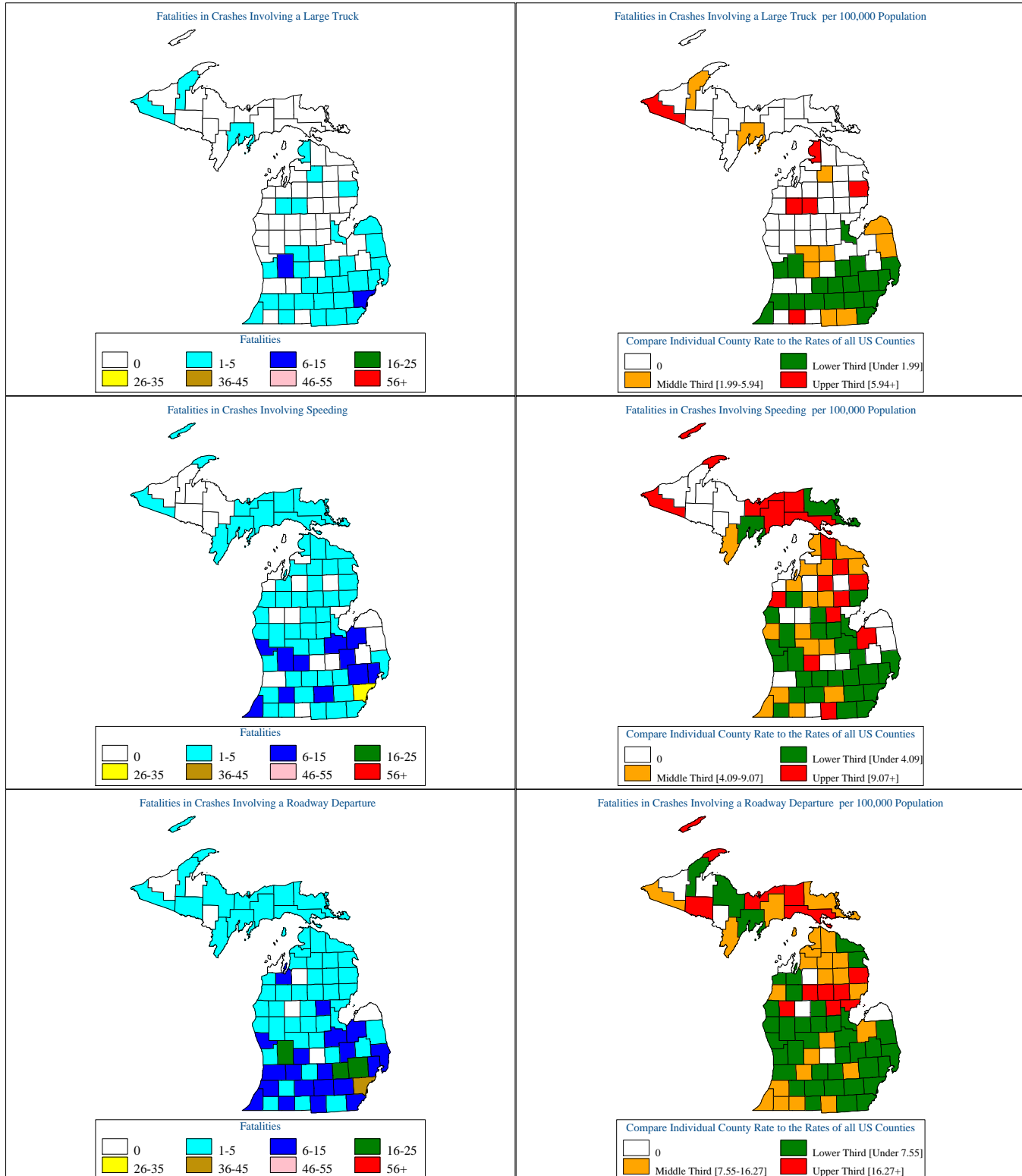
## Michigan Motor Vehicle Crash Fatality Maps for 2010



[Back To The Table of Contents](#)



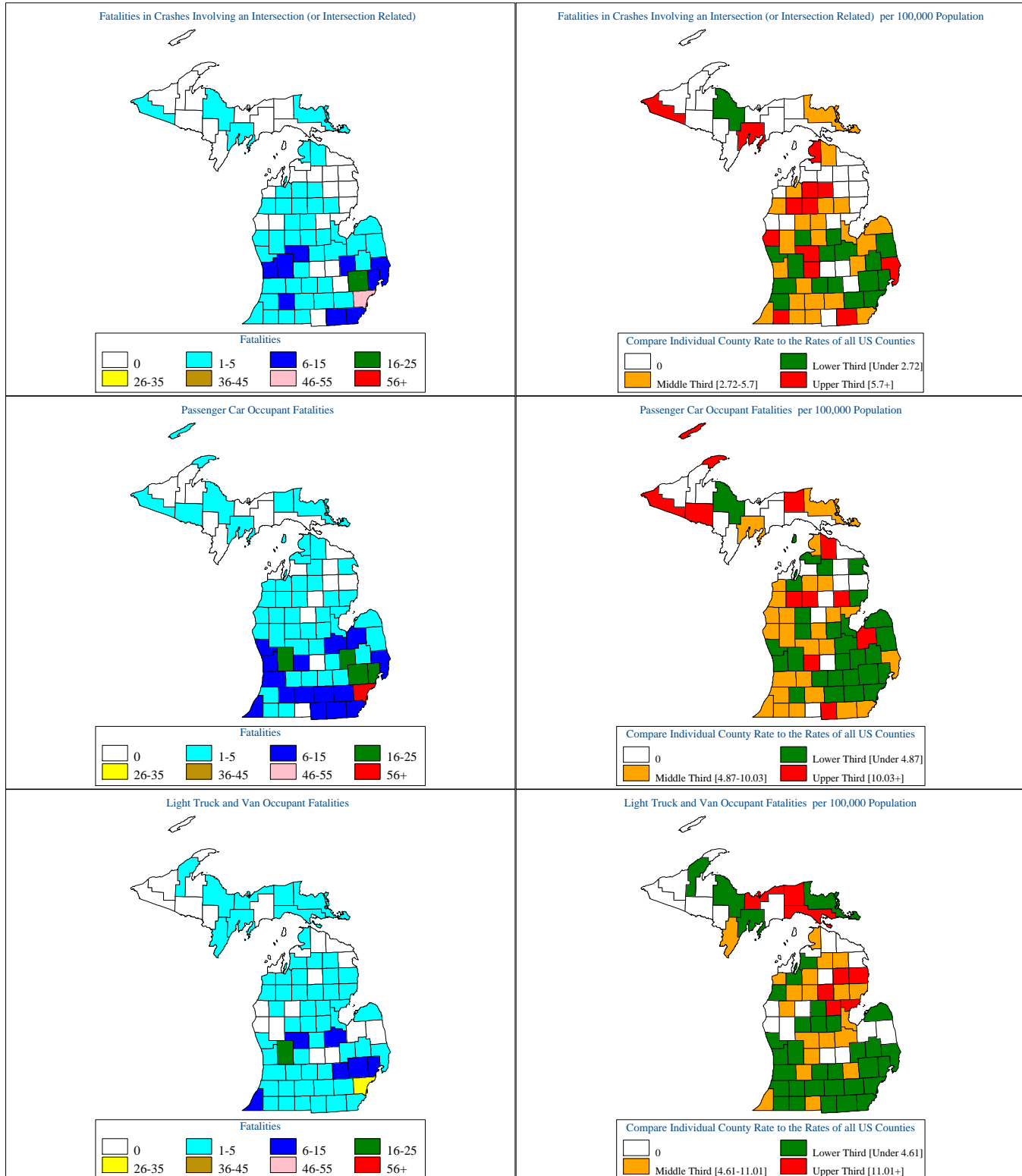
## Michigan Motor Vehicle Crash Fatality Maps for 2010



[Back To The Table of Contents](#)



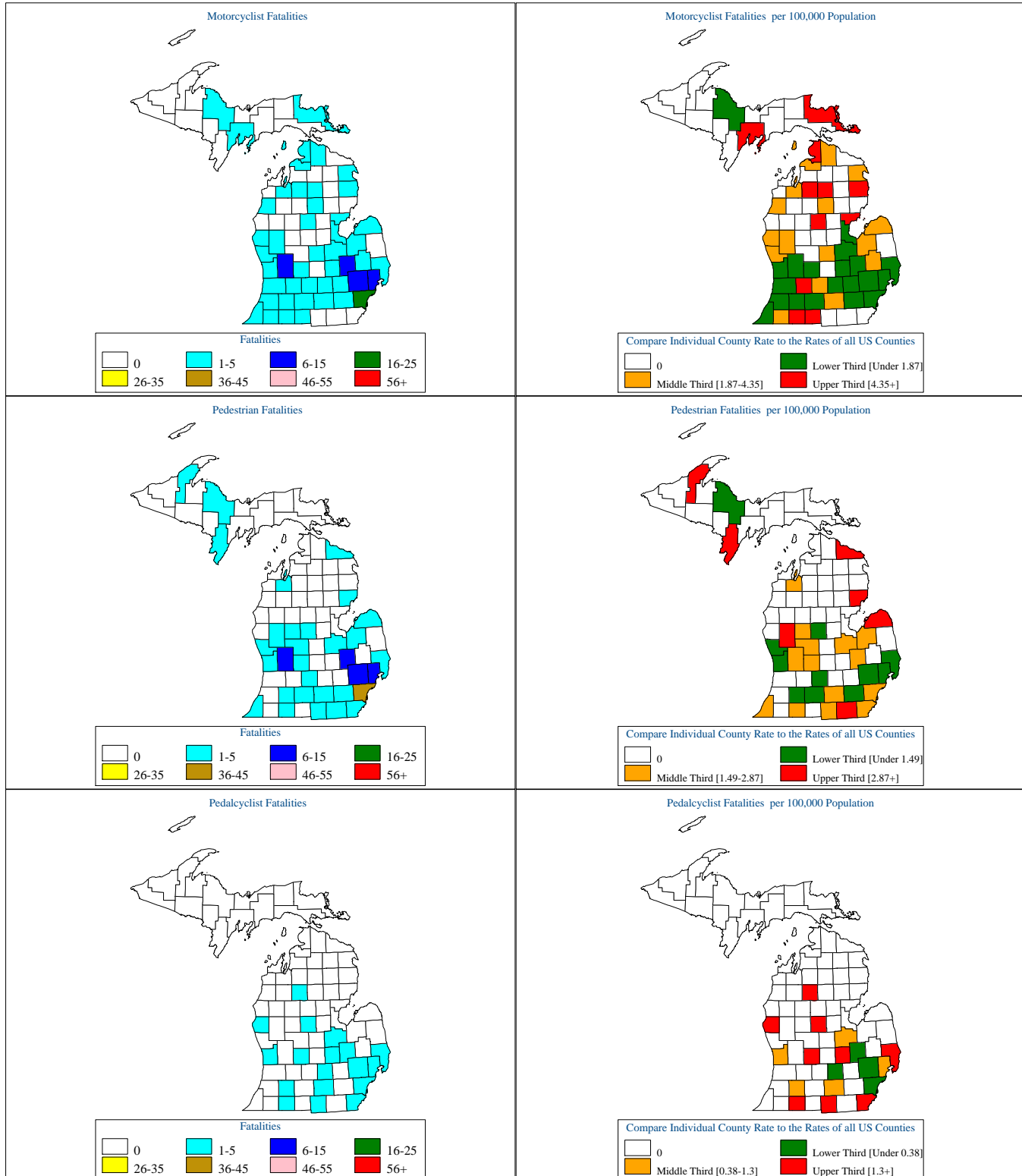
## Michigan Motor Vehicle Crash Fatality Maps for 2010



[Back To The Table of Contents](#)



## Michigan Motor Vehicle Crash Fatality Maps for 2010



[Back To The Table of Contents](#)